Effect Of Yoga On Physical Fitness Components Of Athletes

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Introduction

Yoga is the system of psycho physical training that has its goal the uncovering the mystical consciousness. Yoga is timeless pragmatic science evolved over thousands of the year dealing with the physical moral being of man as whole yoga is training in the techniques of harmony and also preparations for the total integration of human personality.

Hoare says that yoga first summarized and systematized around the second country A.D by Patanjali and his Yoga sutra still regarded as the classic work on the subject. Hence patanjali is known as the father of yoga. He has formed a number of yoga sutras regarding yoga practice. Yoga however is not a religious domain. It is both a science and philosophy science in the sense that it has a well defined technique based on the modern physiological principles and philosophy because it teaches a way of life yoga brings about an integrated, harmonious and disciplined functioning of the body as well mind is essential to achieve positive health since man is psycho-biological in general.

Objectives of the Study:

The following are the major objectives of the study.

1. To study the effect of yoga on physical fitness components.
2. To study the effect of demographic variables on physical fitness component.

Hypotheses:

The following are the hypotheses of the present study

- There is significant effect of yoga on physical fitness components
- There is significant influence of demographic variables on physical fitness components

Variables:

- Dependent: Physical fitness
- Independent: Yoga and demographic factors (Gender, Domicile, age and level of sports participation)

Verma Rana and Singh (2001) to develop physical profile of kabaddi players the descriptive study. The purpose of study was to develop the physical profile of kabaddi players. 100 male kabaddi players were selected from west zone Inter University Championship as the subject of the study. Their age ranged between 18 to 23 years. Keeping the feasibility in mind speed, agility and explosive power has been selected for this study. Speed and agility were assessed by administering 50 yard dash and the performance was recorded in second and shuttle run respectively. To determine for the explosive power, standing board jump was used and reading was recorded in meters. To develop the physical profile of kabaddi players, descriptive analysis was applied. The results of study indicates that the case of 50 yard dash, standing board jump kabaddi players scored above average. It was concluded that west zone university kabaddi players were having average in the speed and shuttle run and in the case of standing board jumping were above the average. And it was also concluded that west zone university kabaddi players scored above the average in explosive power.

With the above background, the present study is designed to address itself to assess the effect of yoga on the physical fitness on the athletes selected from different institutions of Gulbarga.
minutes) varying his face from fast to slow or medium and vice versa, many a time hopping, jumping and changing directions while in a movements this puts a great deal of demand in terms of physical effort on the part of each player. In the area of the internationals competitions one can hardly differentiate the top notch contenders from the one another in terms of their levels of fitness. However, the deciding factors sometimes remains with fitness. The world's top most sporting nations are very much conscious of these facts and concentrates on the development of the basic physically fitness components and the related components. Cardio vascular endurance is one of the major physical fitness components required for the basket ball as well as this game fast and exciting and it involves continuous movements and actions with or without the ball, since basket ball requires almost instant movement over the longer period of the time one most try to attain higher levels of muscular and cardio vascular endurance. Besides physical fitness technical training also plays an important part in the total training process of the sportsman. it has been fully recognized by all experts and sports scientist that performance in basketball terms not only directly depend on the mastery of skills but also in the optimum development of physical and psychological factors of the players.

The sample:
The sample of the present study consists of 300 athletes selected from different institutions. There will be 100 athletes who have learned yoga and 150 athletes who don't practice yoga. The sample finally will be subjected to physical fitness components namely speed, endurance, flexibility, agility, and strength. The distribution of the sample based is given as under:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained in Yoga</td>
<td>50</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Non trained in Yoga</td>
<td>50</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

Tools:
The following tools will be used in the study:

1) Personal Data Schedule:
This designed to collect the information's with regard to demographic factors of the sample of the study. These demographic variables include age, sex, family type and domicile. The information also includes the level of sports participation of the respondents

2) Physical Fitness test:

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Physical fitness test</th>
<th>Test</th>
<th>Unit of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Speed</td>
<td>50 yard Dash</td>
<td>Time</td>
</tr>
<tr>
<td>02</td>
<td>Endurance</td>
<td>12 min Run and Walk</td>
<td>Distance</td>
</tr>
<tr>
<td>03</td>
<td>Flexibility</td>
<td>Sit and Reach Test</td>
<td>Inches</td>
</tr>
</tbody>
</table>

Concept Of Fitness Components:
The following five motor tests which are helpful in assessing the fitness of an athlete’s physical fitness

1. SPEED:

Speed, like strength and endurance, is a conditional ability. It has a complex nature as it depends to a considerable extent on the central nervous system. Due to this fact the exact nature of these abilities is difficult to discover and understand. Moreover, because we can influence the functioning of the central nervous system only to a very limited extent, speed performance cannot be improved to any considerable extent as is the case in strength and endurance. Besides because of the high role of the coordinative process in a speed performance the improvements of speed has to be done with specific means and methods.

Speed ability should not be equated with mechanical speed which is equal to distance covered per unit of time. In several sports actions no distance is covered at all speed ability primarily signifies the ability to execute motor movements with high speed these movements may be cyclic in nature. Schnabel (1981) gives the following definition of speed.
“it is the performance pre-requisite to do motor actions under given condition movement task, external factors, individual pre-requisites in minimum o time” speed performance appears in deferent form in various sports. We can divide speed abilities in to five types : reaction ability movement speed, acceleration ability loco motor ability and speed endurance.

2. ENDURANCE:

Endurance like strength, is a conditional ability. It is primarily determined by energy liberation process. The ability of human body to maintain a certain level of energy production forms the psychological basis of endurance. Due to high importance for health for training for competition And also due to its psychological determinants, which can be relatively easily studied, it is ability, which has been studied in great detail and depth by the psychologists.

Endurance is directly or indirectly of great importance in all sports ; it is however, not easy to define endurance. Nabatnikova (1976) brings this in to focus by representing definitions given by several experts. Disagreement among experts is much more regarding the definition of deferent types of endurance e.g :- Special Endurance, Speed Endurance, strength Endurance, etc,....

But their is agreement regarding the certain aspects of endurance like; it relates to doing work for a long time of period; it relates to working under fatigue conditions; it involves a large number of muscles and involves work efficiency.

Harre (1986)defines endurance as the ability to resist to figure. Schnabel (1981)also define endurance as the resistance ability to fatigue . Martine (1979)and Mathew(1981) have also used the concept of ‘ability is resists fatigue’ for defining endurance. But Hardayal Singh (1991)writes “endurance is ability to do sports movement, with desired quality and speed, under the conditions of fatigue.

Without an understanding of fatigue caused by training And competition load and the psycho-psychological system involved in countering the effects of fatigue one connect fully grasp the nature of endurance. Because of the overwhelming contribution made by sports psychology the psychic aspect of endurance is often overlooked . But it is important to realize that endurance is much a product of psychic functions as of physiological functions. This fact has been proved time and again by successful endurance Athletes.

3. FLEXIBILITY

Flexibility is a motor ability, which is nit merely a conditional or a coordinative ability it depends on the energy liberation process and partly on the coordinative process of the CNS(Menial and Schnaloel 1987) . In Common usage flexibility means much more than what is conveyed by any of these terms. Flexibility can be defined as the ability to execute movements with greater amplitude or range.

Stretch ability and elasticity are the qualities of the muscles and ligaments by which these can be stretched and can resign their normal length with ought any adverse effect on the concerned tissue. Suppleness donates the ability of a muscle to remain in the state of low tension thereby allowing for smooth and easy movements of the limbs.

Mobility pertains to the degree of movement possible in a deferent place at joint. Stretch ability, elasticity, mobility, and suppleness, therefore are a part parcel of flexibility as these represent deferent capacities, which enable the person to executive movements with greater amplitude.

Flexibility is measured by determining the range of movement possible at joint this has given rise to the nation that Flexibility is joint specific but in actual sports movements the range of the movements is the product of range of movements Possible at more than one joint, for the greater amplitude. Therefore some degree of coordination of deferent joints movement is necessary pre-requisite in all sports movements. However, in a maximum range of movements all joints are not required is less then the maximum possible. Bit a higher level of Flexibility is enables an athletics to achieve the required movement amplitude easily with ought much muscle tension etc...
Analysis And Interpretation Of Results

Analysis and interpretation of data based on the spastically result and findings. Further the results are discussed as per the following steps.

- Analysis of yogic effect on physical fitness component of athletes
- Analysis of yogic effect on speed, agility, flexibility, endurance

Recommendations:

Based On The Findings And Results Of Present Study The Following Recommendations Were Drawn.

1. It Is Recommended That Based On The Study Results Coaches And Trainers Can Prepare Scientific Training Programmers For athletes.
2. The Study Helps To Prepare The Profile Of Physical Fitness on athletes performance

References

1. Clarke, H. H. (ed)(1971) basic understanding of physical fitness. physical fitness research digest 1(1) president’s Council on physical fitness and sports Washington D.C U.S.A